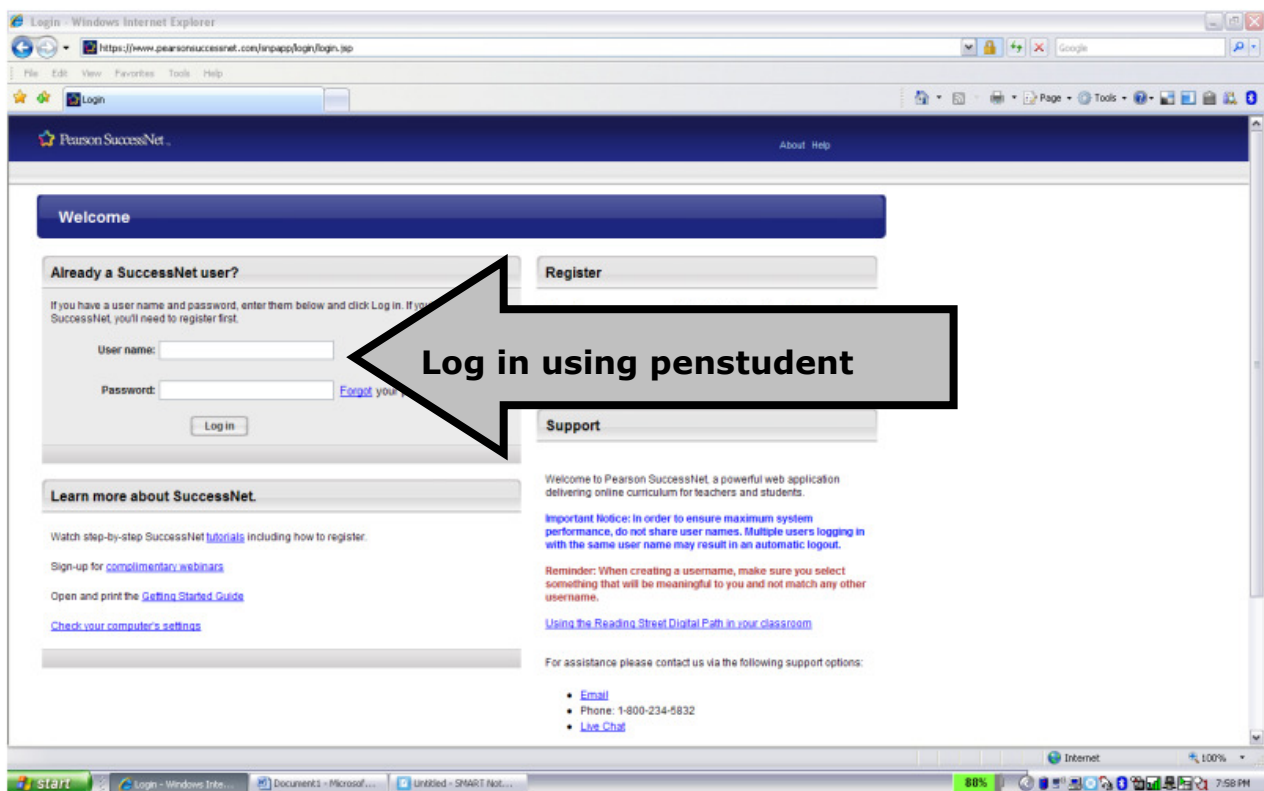


# Making the Most of Math Resources

## *Accessing the High School Resources*

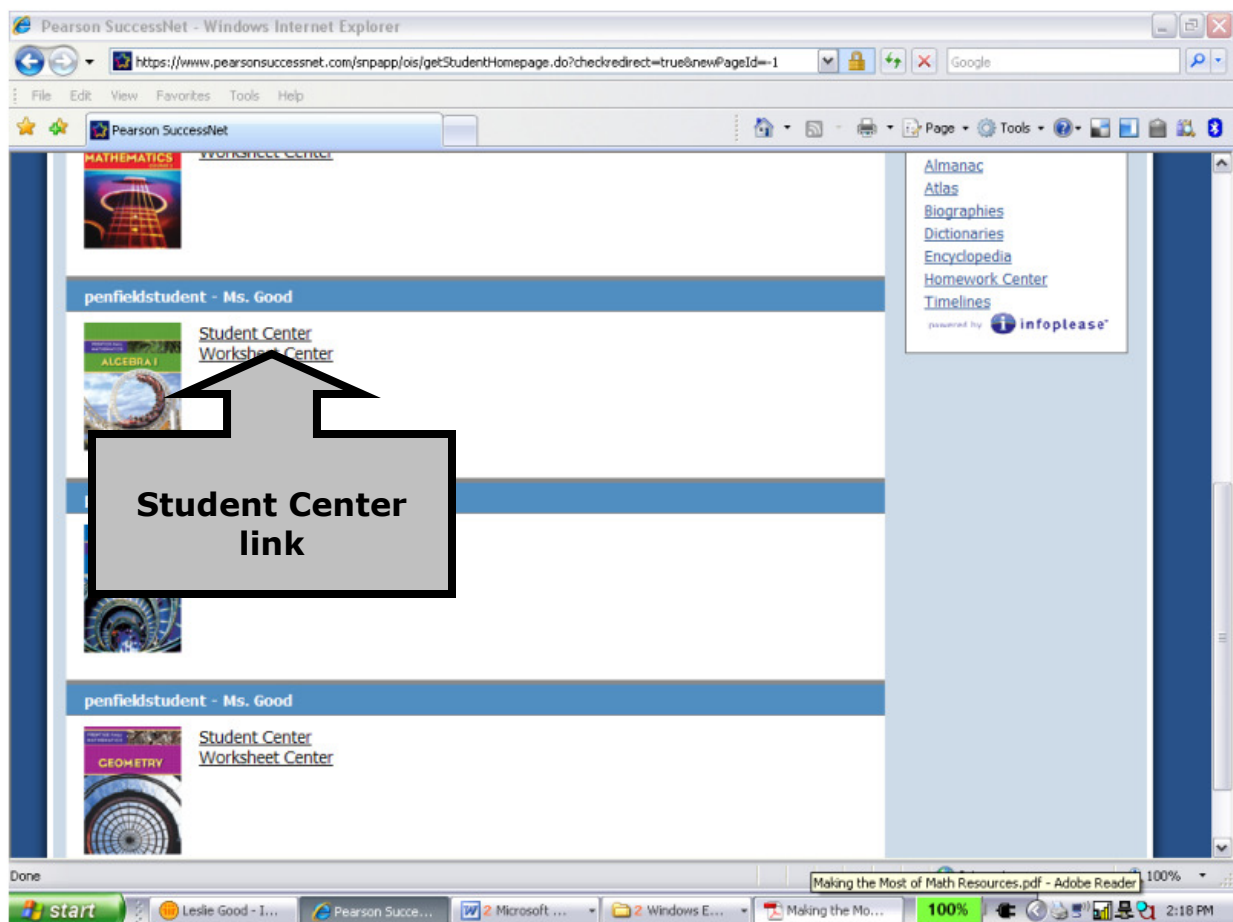
### *(Algebra, Geometry, & Algebra 2/Trig)*

- Go to [www.pearsonsuccessnet.com](http://www.pearsonsuccessnet.com)
- Log on using the username and password: penstudent

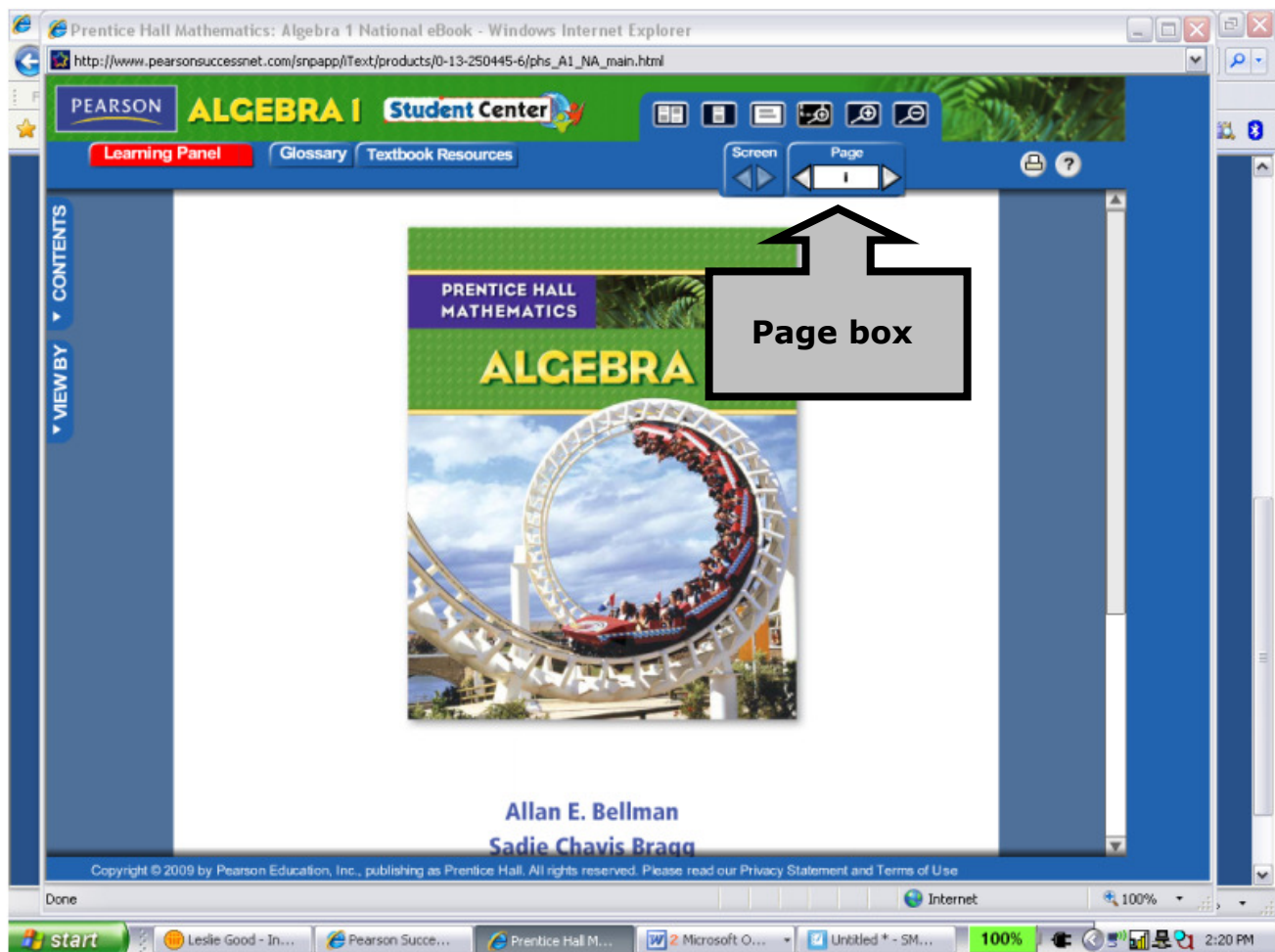


Questions, please contact:  
Leslie Good  
Director of Curriculum Content: Mathematics  
Penfield Central School District  
[Leslie\\_Good@penfield.monroe.edu](mailto:Leslie_Good@penfield.monroe.edu)

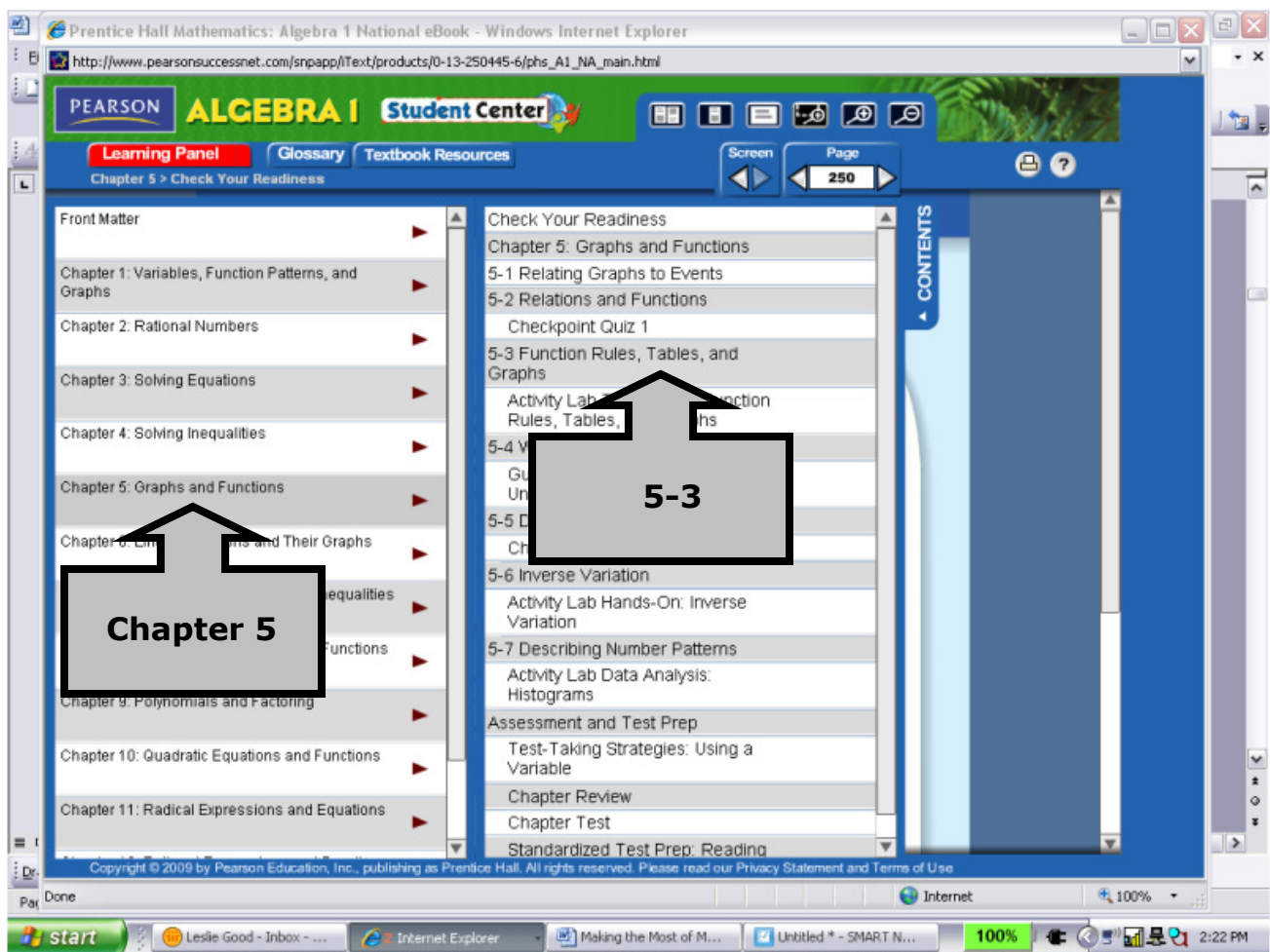
- You will see pictures and links for 6 textbooks. The first three textbooks are for 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grades, respectively. The remaining books are for Algebra, Algebra 2/Trigonometry, and Geometry, respectively.
- Scroll down and click on the link that says 'Student Center' *next to* the picture of the green Algebra book. This is the Algebra textbook. (All of the Prentice Hall textbooks are set-up similarly.)



- A new window will open and you will see the cover of the textbook.
- You can jump to a specific page number by typing that page number in the page box in the top, right.
- For example, type 234 in this page box and page 234 will be displayed. Go ahead and try this.



- To view the Table of Contents, click on the Contents tab on the left.
- The chapters will be displayed. Click on Chapter 5: Graphs and Functions.
- All of the lesson activities in Chapter 5 now appear.
- Click on 5-3 Functions, Rules, Tables, Graphs.



- You will see the first page of this section in the textbook.  
(Page 263)
- This is what the student's actual, physical textbook looks like.
- If you click the arrow pointing right, next to the page box, you will be able to move to the next page.
- Click this arrow a few times and you will see that the textbook is laid out with examples and then practice problems for each lesson.

The screenshot shows the Pearson Algebra 1 Student Center interface. The page title is "Function Rules, Tables, and Graphs" under the heading "5-3 Multiple Representations". The page number "263" is displayed in a box, and a large grey arrow points to the right arrow next to it, with the text "Moves to the next page". The page content includes a "What You'll Learn" section, a "Check Skills You'll Need" section, and a "Modeling Functions" section. The "Modeling Functions" section includes a graph of a line passing through the points  $(-3, -4)$ ,  $(0, -1)$ , and  $(3, 2)$ . The graph is labeled with "Graph the independent variable on the horizontal axis" and "Graph the dependent variable on the vertical axis". The text explains that a function rule shows how variables are related, a table identifies specific input and output values, and a graph gives a visual picture of the function. The page also includes a "New Vocabulary" section with terms like "discrete data" and "continuous data".



- There are a few icons that you need to pay attention to. These icons provide links to additional interactive resources within each lesson:



Pencil icon – opens a window to practice questions



Hammer icon – opens a window to tutorial videos



Speaker icon – click on it and the vocabulary word is pronounced



Go for Help icon – takes you to other sections in the text to review previously taught concepts

- Click on each of these icons to try them.

The screenshot displays the Pearson Algebra 1 Student Center interface within a Windows Internet Explorer browser. The page title is "Prentice Hall Mathematics: Algebra 1 National eBook - Windows Internet Explorer". The URL is [http://www.pearsonsuccessnet.com/snpapp/Text/products/0-13-250445-6/phis\\_A1\\_NA\\_main.html](http://www.pearsonsuccessnet.com/snpapp/Text/products/0-13-250445-6/phis_A1_NA_main.html). The page features a navigation bar with "PEARSON ALGEBRA 1 Student Center" and tabs for "Learning Panel", "Glossary", and "Textbook Resources". The current page is "Chapter 5 > 5-3 Function Rules, Tables, and Graphs", page 263. The main content area is titled "Modeling Functions" and includes a "What You'll Learn" section with a pencil icon, a "Check Skills You'll Need" section with a hammer icon, and a "GO for Help" section with a green arrow icon. The "What You'll Learn" section lists: "To model functions using rules, tables, and graphs" and "To find the cost of making CDs, as in Example 2". The "Check Skills You'll Need" section lists: "Identify the independent and dependent quantities in each situation." and "1. A runner averages 7 miles per hour." and "2. A customer can buy a dozen apples for \$2.40 or two dozen apples for \$4.50." The "GO for Help" section lists: "Lesson 1-4". The "Modeling Functions" section includes a graph of a line passing through points (0, -1), (1, 0), (2, 1), (3, 2), and (4, 3). The graph is labeled with "Graph the independent variable on the horizontal axis." and "Graph the dependent variable on the vertical axis." and "Use the input and output values as ordered pairs to plot points." and "Join the points with a line or smooth curve to give a general picture of the function." The "EXAMPLE Three Views of a Function" section includes the function rule  $y = -\frac{1}{2}x + 1$  and steps: "Step 1 Choose input values for x. Evaluate to find y." and "Step 2 Plot points for the ordered pairs." and "Step 3 Join the points to form a line." The page footer includes "Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use". The browser's taskbar shows the "start" button, "Leslie Good - Inbox - ...", "Internet Explorer", "Making the Most of Math Resources High School - Microsoft Word", and "Untitled \* - SMART N...". The system clock shows "100%" and "2:27 PM".

- Click the blue 'View By' tab on the left.
- You will see four new links:
  - Active Math
  - Video
  - Discovery Channel Video
  - Self-Assessment

The screenshot shows the Pearson Algebra 1 Student Center website. The browser window title is "Prentice Hall Mathematics: Algebra 1 National eBook - Windows Internet Explorer". The address bar shows the URL: [http://www.pearsonsuccessnet.com/snapp/IText/products/0-13-250445-6/phs\\_A1\\_NA\\_main.html](http://www.pearsonsuccessnet.com/snapp/IText/products/0-13-250445-6/phs_A1_NA_main.html). The page header includes the Pearson logo and "ALGEBRA 1 Student Center". Navigation tabs include "Learning Panel", "Glossary", and "Textbook Resources". The current page is "Chapter 5 > 5-3 Function Rules, Tables, and Graphs", page 263.

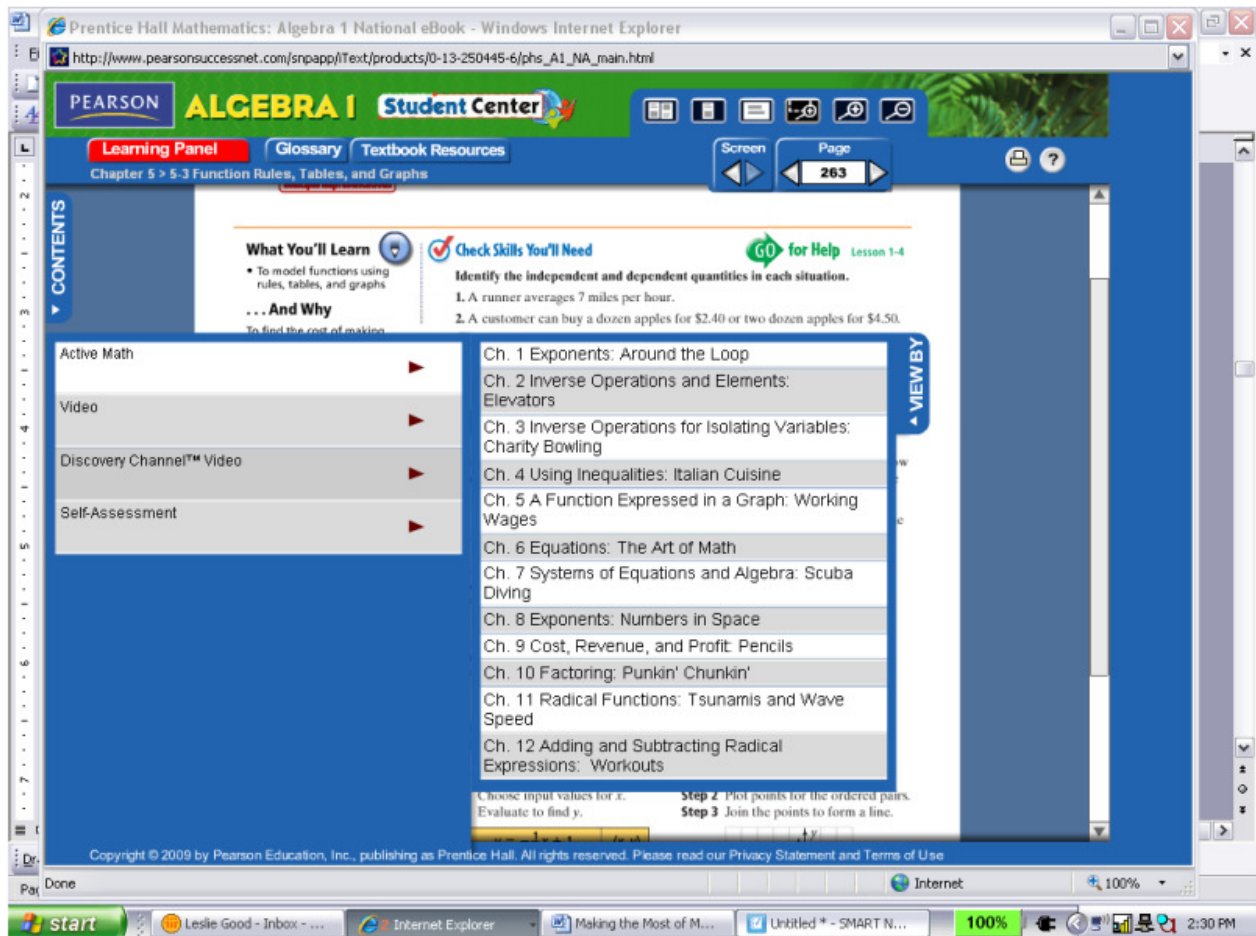
On the left sidebar, the "VIEW BY" tab is selected, showing four links: "Active Math", "Video", "Discovery Channel™ Video", and "Self-Assessment".

The main content area includes:

- What You'll Learn**: To model functions using rules, tables, and graphs.
- Check Skills You'll Need**: Identify the independent and dependent quantities in each situation.
  1. A runner averages 7 miles per hour.
  2. A customer can buy a dozen apples for \$2.40 or two dozen apples for \$4.50.
- GO for Help Lesson 1-4**
- Algebra**: discrete data, continuous data
- Graphing**: A graph gives a visual picture of the function. The graph shows a line passing through points (0, -1) and (2, 1). Labels indicate the independent variable on the x-axis and the dependent variable on the y-axis. Instructions: "Use the input and output values as ordered pairs to plot points." and "Join the points with a line or smooth curve to give a general picture of the function."
- EXAMPLE Three Views of a Function**: The function rule  $y = -\frac{1}{2}x + 1$  using a table of values and a graph.
  - Choose input values for  $x$ . Evaluate to find  $y$ .
  - Step 2** Plot points for the ordered pairs.
  - Step 3** Join the points to form a line.

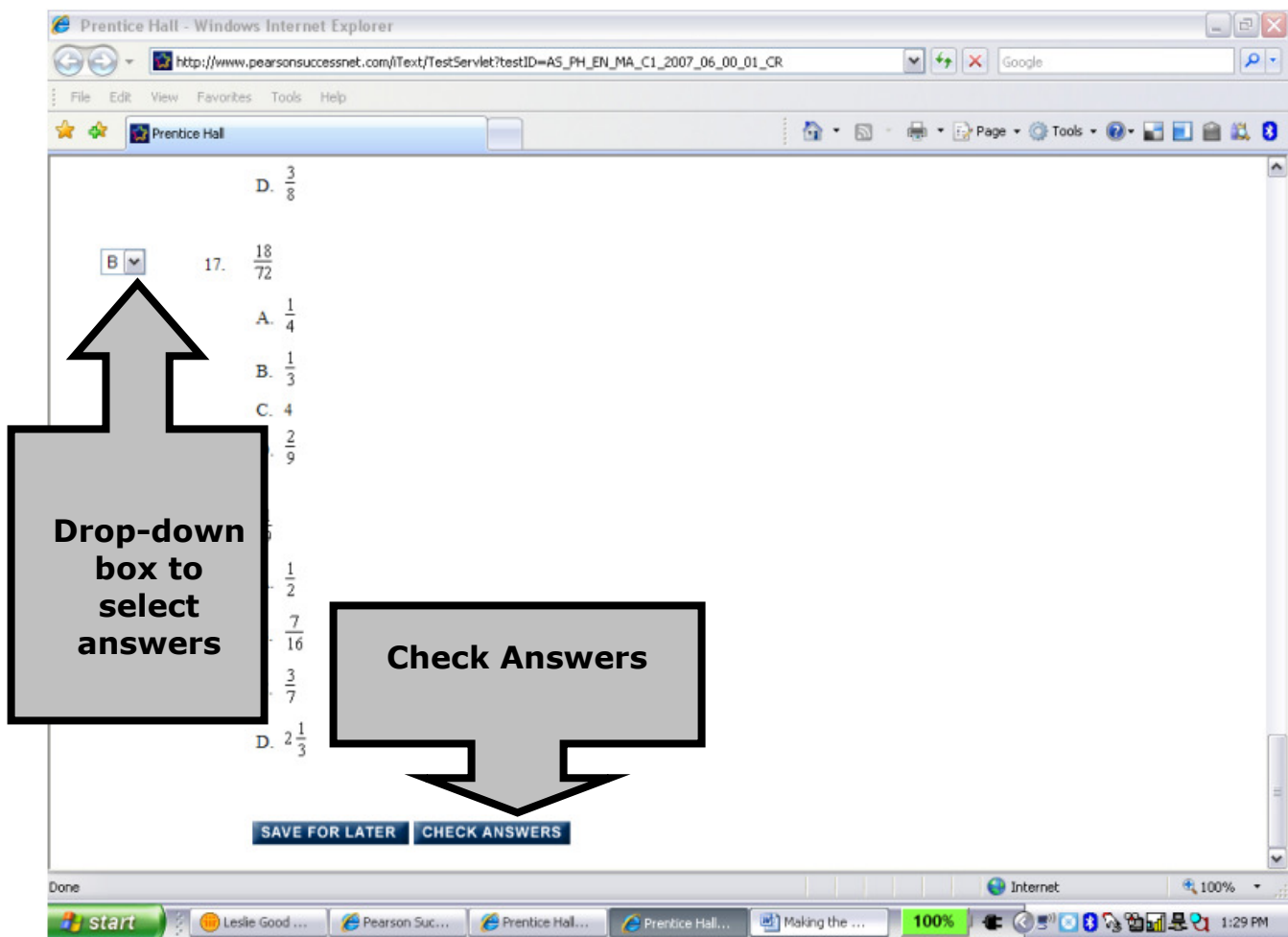
Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use.

- Click the Active Math link.
- You will see links for some of the lessons. These links open to interactive tools for students to use to support their learning.
- Try one of these tools.
- The same is true for the Video link. If you click on it, you will see links to video tutorials for some of the lessons.
- The Discovery Channel link provides video clips of real-world applications of the math content from each chapter.





- Click on the Self-Assessment link.
- This will take you to links for assessments for each of the chapters.
- Click on one of these assessments. These assessments are multiple choice. Notice that there are drop-down boxes that allow you to answer each of these questions.
- If you scroll to the bottom of one of these assessments, there is a blue 'Check Your Answers' button. This will grade the assessment for you.
- Try one of these assessments.



- Close that window.
- Notice the three tabs at the top of the page:  
Learning Panel  
Glossary  
Textbook Resources
- Click on the red Learning Panel tab.

The screenshot shows the Pearson Algebra 1 Student Center website. At the top, there are three tabs: "Learning Panel" (highlighted in red), "Glossary", and "Textbook Resources". Below the tabs, the page is titled "Chapter 5-3 Function Rules, Tables, and Graphs". A red box highlights the "Learning Panel" section, which contains a "CORE" path for instruction. The path includes a "LEARN" section with links to "Chapter Vocabulary", "Step-by-Step Examples", and "Quick Check", followed by a "CHECK" section with a "Lesson Quiz". Below this, the page displays a lesson titled "1 Modeling Functions". The text explains that functions can be modeled using rules, tables, and graphs. It includes a graph of a line passing through points  $(-2, -1)$ ,  $(0, -3)$ , and  $(2, -5)$ . The graph is labeled with "Graph the independent variable on the horizontal axis" and "Graph the dependent variable on the vertical axis". The points are labeled as  $(-2, -1)$ ,  $(0, -3)$ , and  $(2, -5)$ . The text also says "Use the input and output values as ordered pairs to plot points." and "Join the points with a line or smooth curve to give a general picture of the function."

- A new red window opens.
- Click on the down arrow within this red window.
- A new menu of options will appear.

Prentice Hall Mathematics: Algebra 1 National eBook - Windows Internet Explorer

http://www.pearsonsuccessnet.com/snpapp/Text/products/0-13-250445-6/phs\_A1\_NA\_main.html

PEARSON **ALGEBRA I** Student Center

Learning Panel Glossary Textbook Resources

Chapter 5 > 5-3 Function Rules, Tables, and Graphs

Follow the core path for instruction using the links below. To access additional lesson resources, expand the menu.

Lesson 5-3

GET READY LEARN CHECK

CORE Check Skills You'll Need CORE Chapter Vocabulary Step-by-Step Examples Lesson Quiz

Down arrow

1 Modeling Functions

You can model functions using rules, tables, and graphs. A function rule shows how the variables are related. A table identifies specific input and output values of the function. A graph gives a visual picture of the function.

Recall from Lesson 1-4 that the inputs are values of the independent variable. The outputs are the corresponding values of the dependent variable.

Graph the independent variable on the horizontal axis.

Graph the dependent variable on the vertical axis.

Use the input and output values as ordered pairs to plot points.

Join the points with a line or smooth curve to give a general picture of the function.

Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use

Done Internet 100% 2:35 PM

- This is your “One-Stop” window.
- This gives you links to all of assessments, vocabulary, activity lab links, and video links for one lesson. *All in one spot!*
- The links are organized by Get Ready (prior to lesson), Learn (lesson), Check (after lesson).
- Click on one of these links to try it.

Prentice Hall Mathematics: Algebra 1 National eBook - Windows Internet Explorer

http://www.pearsonsuccessnet.com/snpapp/IText/products/0-13-250445-6/phs\_A1\_NA\_main.html

PEARSON ALGEBRA 1 Student Center

Learning Panel Glossary Textbook Resources

Chapter 5 > 5-3 Function Rules, Tables, and Graphs

Lesson 5-3

Follow the core path for instruction using the links below. To access additional lesson resources, expand the menu.

GET READY LEARN CHECK

CORE Check Skills You'll Need CORE Chapter Vocabulary Step-by-Step Examples Quick Check CORE Lesson Quiz

Quiz to determine readiness

Quiz for after lesson is taught

VIDEOS A Function Expressed in a Graph Working Wages

VIDEOS Discrete vs. continuous data Graphing a nonlinear function Modeling a function using three views

Graph the dependent variable on the vertical axis.

Join the points with a line or smooth curve to give a general picture of the function.

Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use

Done Internet 100%

start Leslie Good - Inbox - ... Internet Explorer Making the Most of M... Untitled \* - SMART N... 100% 2:38 PM

- Click on the Step-by-Step Examples link.
- This opens a PowerPoint of the lesson.

The screenshot shows the Pearson Algebra 1 Student Center website. The page is titled "Lesson 5-3" and includes a navigation menu with three main sections: "GET READY", "LEARN", and "CHECK". The "LEARN" section is highlighted with a large grey arrow pointing to the "Step-by-Step Examples" link. The "CHECK" section contains a "Lesson Quiz" link. The "GET READY" section contains a "Check Skills You'll Need" link. The page also features a "VIEW BY" sidebar with options for "CORE", "ACTIVITIES", and "VIDEOS". The "CORE" section is currently selected. The page is displayed in a Windows Internet Explorer browser window. The address bar shows the URL: [http://www.pearsonsuccessnet.com/snpapp/IText/products/0-13-250445-6/phs\\_A1\\_NA\\_main.html](http://www.pearsonsuccessnet.com/snpapp/IText/products/0-13-250445-6/phs_A1_NA_main.html). The page number 263 is visible in the top right corner. The bottom of the page shows the Windows taskbar with the Start button and several open applications: "Leslie Good - Inbox - ...", "Internet Explorer", "Making the Most of M...", and "Untitled \* - SMART N...". The system clock shows 2:38 PM.

PEARSON **ALGEBRA 1** Student Center

Learning Panel | Glossary | Textbook Resources

Chapter 5 > 5-3 Function Rules, Tables, and Graphs

Screen Page 263

Follow the core path for instruction using the links below. To access additional lesson resources, expand the menu.

Lesson 5-3

**GET READY** **LEARN** **CHECK**

**CORE** Check Skills You'll Need **CORE** Chapter Vocabulary Step-by-Step Examples Quick Check **CORE** Lesson Quiz

**ACTIVITIES** Function Rules, Tables, and Graphs

**VIDEOS** A Function Expressed in a Graph-Working Wages data Graphing a nonlinear function Modeling a function using three views

**Step-by-Step Examples**

Graph the dependent variable on the vertical axis.

Join the points with a line or smooth curve to give a general picture of the function.

Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use

Done Internet 100%

start Leslie Good - Inbox - ... Internet Explorer Making the Most of M... Untitled \* - SMART N... 100% 2:38 PM



Prentice Hall Mathematics: Algebra 1 National eBook - Windows Internet Explorer

http://www.pearsonsuccessnet.com/snpapp/Text/products/0-13-250445-6/phis\_A1\_NA\_main.html

PEARSON **ALGEBRA I** Student Center

Learning Panel Glossary Textbook Resources

Chapter 5 > 5-3 Function Rules, Tables, and Graphs

Screen Page 263

Follow the core path for instruction using the links below. To access additional lesson resources, expand the menu.

Lesson 5-3

| GET READY  |                                    | LEARN      |  | CHECK       |
|------------|------------------------------------|------------|--|-------------|
| CORE       | Check Skills You'll Need           | CORE       | Chapter Vocabulary<br>Step-by-Step Examples<br>Quick Check   | Lesson Quiz |
| ACTIVITIES | Function Rules, Tables, and Graphs | ACTIVITIES |  |             |
|            |                                    | VIDEOS     | Discrete vs. continuous data<br>Graphing a nonlinear function<br>Modeling a function using three views |             |

Activity Lab (opens as a pdf)

Tutorial videos

Copyright © 2009 by Pearson Education, Inc., pub

Privacy Statement and Terms of Use

start Done Leslie Good - Inbox - ... Internet Explorer Microsoft Office ... Untitled \* - SMART N... 100% 3:06 PM

- Close the red window.
- Click on the Glossary tab at the top of the page.
- A new window will open. This allows you to enter the *first letter* of the word that you are looking up.
- Try to find the definition of the word triangle.

Prentice Hall

<http://www.pearson.com>

PEARSON

ALGEBRA 1

Student Center

Learning Panel

Glossary

Textbook Resources

Screen

Page 263

Chapter 5 > 5-3 Function Rules, Tables, and Graphs

CONTENTS

VIEW BY

GLOSSARY

Close

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

Absolute value (p.20)

Absolute value equation (p.359)

Additive Inverse (p.56)

Algebraic expression (p.4)

Angle of depression (p.651)

Angle of elevation (p.651)

1 Modeling Functions

You can model functions using rules, tables, and graphs. A function rule shows how the variables are related. A table identifies specific input and output values of the function. A graph gives a visual picture of the function.

Recall from Lesson 1-4 that the inputs are values of the independent variable. The outputs are the corresponding values of the dependent variable.

Graph the independent variable on the horizontal axis.

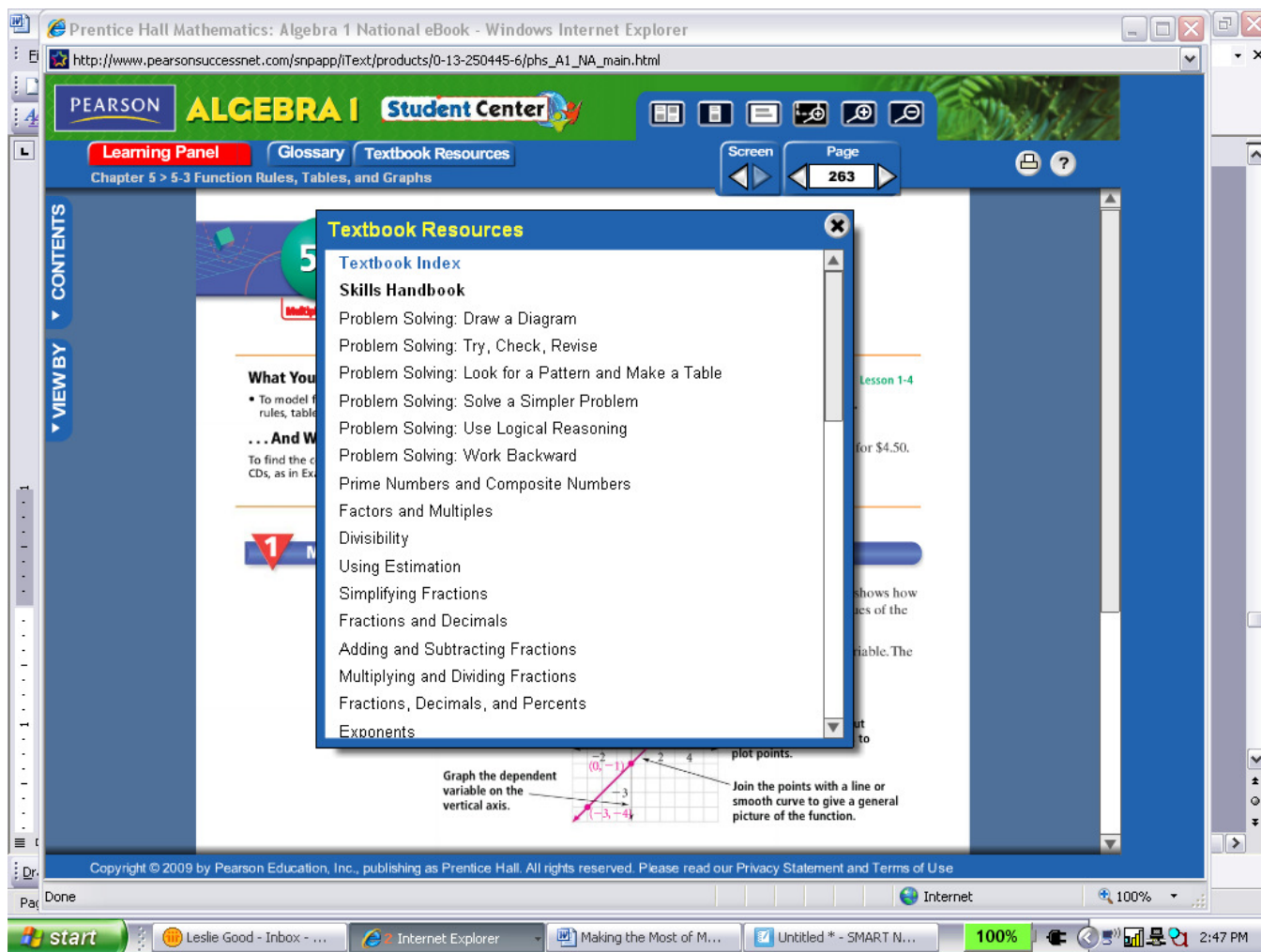
Graph the dependent variable on the vertical axis.

Use the input and output values as ordered pairs to plot points.

Join the points with a line or smooth curve to give a general picture of the function.

Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use

- Close the window for the Glossary.
- Click the Textbook Resources tab at the top of the page.
- A new window opens.



- In this new window, there are links to different skills.
- These links will take you to reference pages that detail how to do certain mathematical skills.
- Click on one of these links to try it.

The screenshot shows a web browser window displaying the Pearson Algebra 1 Student Center. The page has a green header with the Pearson logo and 'ALGEBRA 1 Student Center'. Below the header, there are navigation tabs: 'Learning Panel', 'Glossary', and 'Textbook Resources'. The 'Textbook Resources' tab is active, and a dropdown menu is open, listing various mathematical skills and topics. The background of the page shows a graphing activity with a coordinate plane and a line passing through points  $(0, -1)$  and  $(-3, -4)$ . The Windows taskbar at the bottom shows the Start button, several open applications, and the system clock.

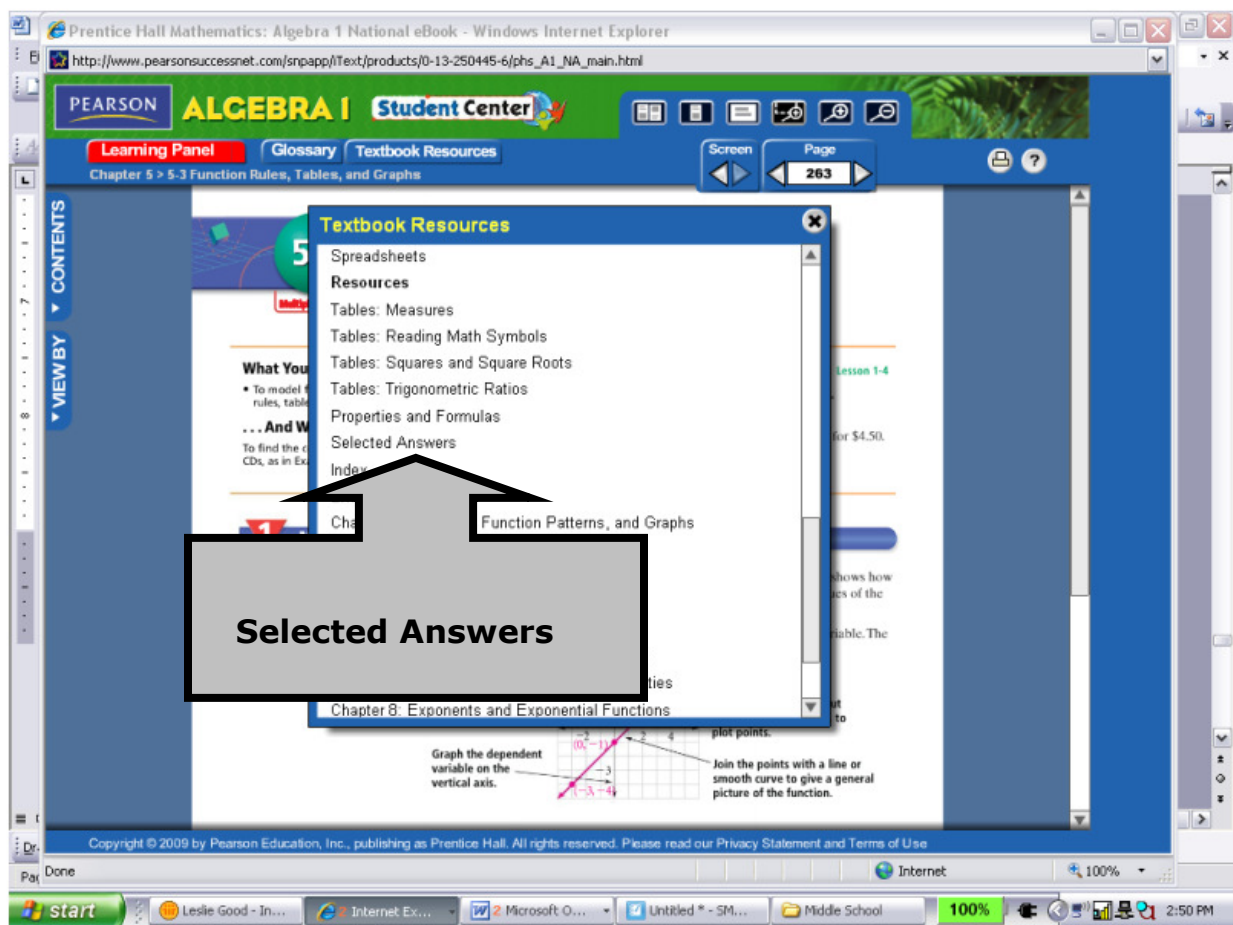
**Textbook Resources**

- Textbook Index
- Skills Handbook
  - Problem Solving: Draw a Diagram
  - Problem Solving: Try, Check, Revise
  - Problem Solving: Look for a Pattern and Make a Table
  - Problem Solving: Solve a Simpler Problem
  - Problem Solving: Use Logical Reasoning
  - Problem Solving: Work Backward
  - Prime Numbers and Composite Numbers
  - Factors and Multiples
  - Divisibility
  - Using Estimation
  - Simplifying Fractions
  - Fractions and Decimals
  - Adding and Subtracting Fractions
  - Multiplying and Dividing Fractions
  - Fractions, Decimals, and Percents
  - Exponents

Graph the dependent variable on the vertical axis. Join the points with a line or smooth curve to give a general picture of the function.

Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use

- Click on the Textbook Resources tab again.
- Scroll down in this window until you see Resources.
- Click on the Selected Answers link.





- On the Selected Answers page, you will see the answers to some of the problems in the textbook.

Prentice Hall Mathematics: Algebra 1 National eBook - Windows Internet Explorer

http://www.pearsonsuccessnet.com/srnpapp/Text/products/0-13-250445-6/phs\_A1\_NA\_main.html

PEARSON **ALGEBRA I** Student Center

Learning Panel Glossary Textbook Resources

End Matter > Selected Answers

Screen Page 860

## Selected Answers

### Chapter 1

#### Lesson 1-1 pp. 6-8

EXERCISES 1.  $p + 4$  3.  $12 - m$  9-11. Choice of variable for the number may vary. 9.  $2n + 2$  11.  $9 - n$  17.  $c = \text{total cost}$ ,  $n = \text{number of cans}$ ,  $c = 0.70n$  19.  $l = \text{total length in feet}$ ,  $n = \text{number of tents}$ ,  $l = 60n$  21-23. Choices of variables may vary. Samples are given. 21.  $w = \text{number of workers}$ ,  $r = \text{number of radios}$ ,  $r = 13w$  23.  $n = \text{number of sales}$ ,  $t = \text{total earnings}$ ,  $t = 0.4n$  25.  $9 + k - 17$  27.  $37t - 9.85$  35-37. Answers may vary. Samples are given. 35. the difference of 3 and  $t$  37. the quotient of  $y$  and 5 39. Choices of variables may vary. Sample is given.  $n = \text{number of days}$ ,  $c = \text{change in height (m)}$ ,  $c = 0.165n$

#### Lesson 1-2 pp. 12-15

EXERCISES 1. 59 3. 7 7. 21 9. 124

13. Original Price  $P$  Sale Price  $S$

| Original Price $P$ | $P - 0.15P$     | Sale Price $S$ |
|--------------------|-----------------|----------------|
| \$12               | $12 - 0.15(12)$ | \$10.20        |
| \$16               | $16 - 0.15(16)$ | \$13.60        |
| \$20               | $20 - 0.15(20)$ | \$17.00        |
| \$25               | $25 - 0.15(25)$ | \$21.25        |

15. 22 17. 44 21. 704 23. 185 29. 18 31. 0 35.  $8 \text{ cm}^3$  37.  $21 \text{ ft}^3$  41. 15 43. 111 51. 17 53. 143 59. 5.16 63a. 23.89 in.<sup>3</sup> b. 2.0 in.<sup>3</sup>

#### Lesson 1-4 pp. 29-32

EXERCISES 1.  $s = 4c$  3.  $c = 40 + 25h$  5. number of minutes; cost 7. number of gallons of gas; distance traveled; 10 to 12 gallons; 250 to 300 miles 9.  $w = 125m$  11.a. Yes; there is one range value for each domain value b. year, number of students

#### Lesson 1-5 pp. 35-37

EXERCISES 3. negative correlation 5. no correlation 17. Answers may vary. Sample: ages of adults and the number of hours they sleep.

#### Lesson 1-6 pp. 43-45

EXERCISES 1. 12; 11; 10; median 3. 63; 52; none; median 5.  $\frac{3.8 + 4.2 + 5.3 + x}{4} = 4.8$ ; 5.9 7.  $\frac{100 + 121 + 105 + 113 + 108 + x}{6} = 112$ ; 125 9. 18 11. 20 21. -3.1, -2, -1, and -2, 15 25.a. A-5.7875, 5.75, 5.4, 1.2 B-5.5625, 5.45, none, 2.9 b. A-mean. There are no outliers. B-median. The mean is thrown off by high outliers c. Plant A has better quality control because there is a smaller range.

#### Chapter Review pp. 47-49

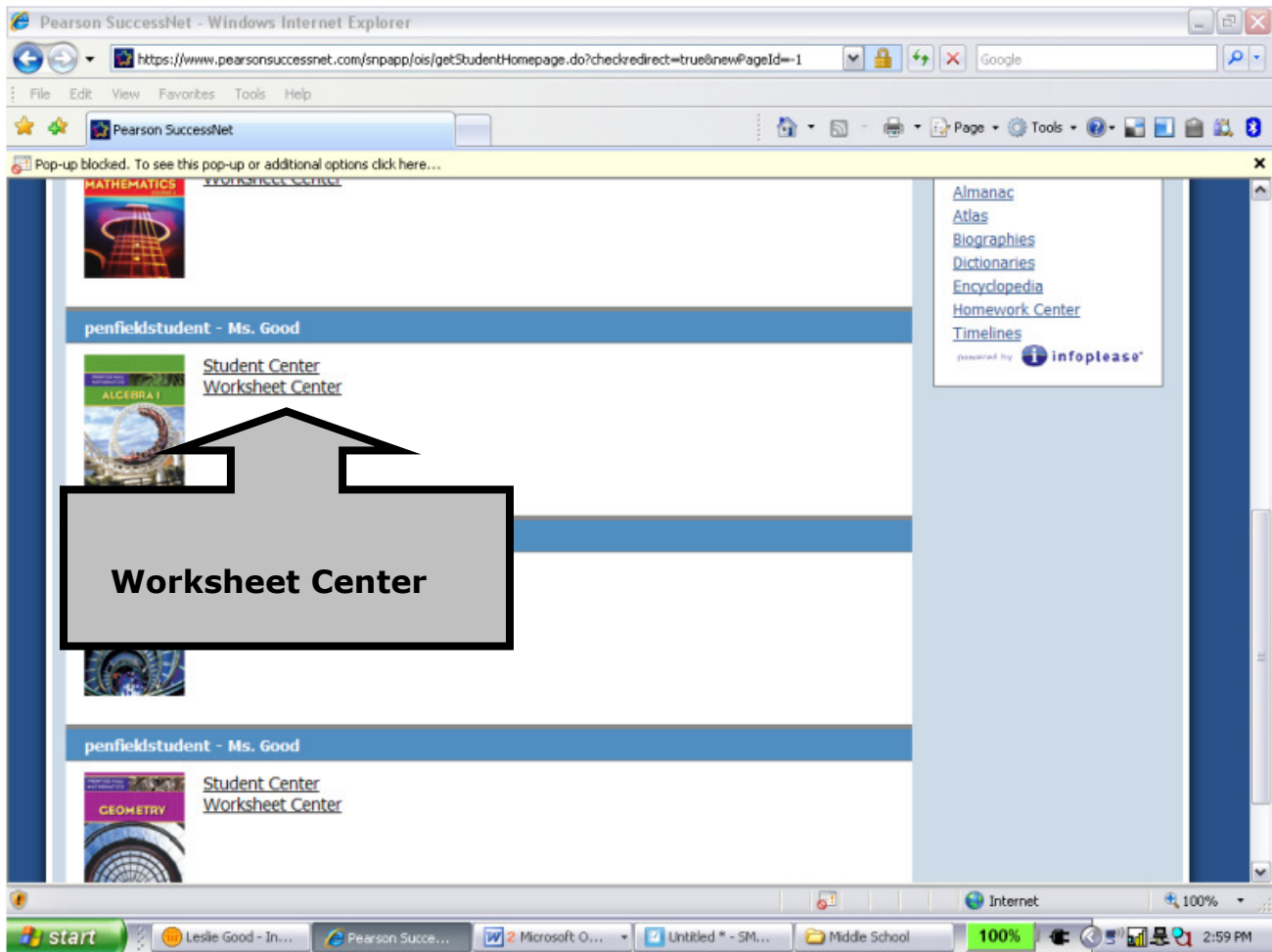
Copyright © 2009 by Pearson Education, Inc., publishing as Prentice Hall. All rights reserved. Please read our Privacy Statement and Terms of Use

Done Internet 100% 2:54 PM

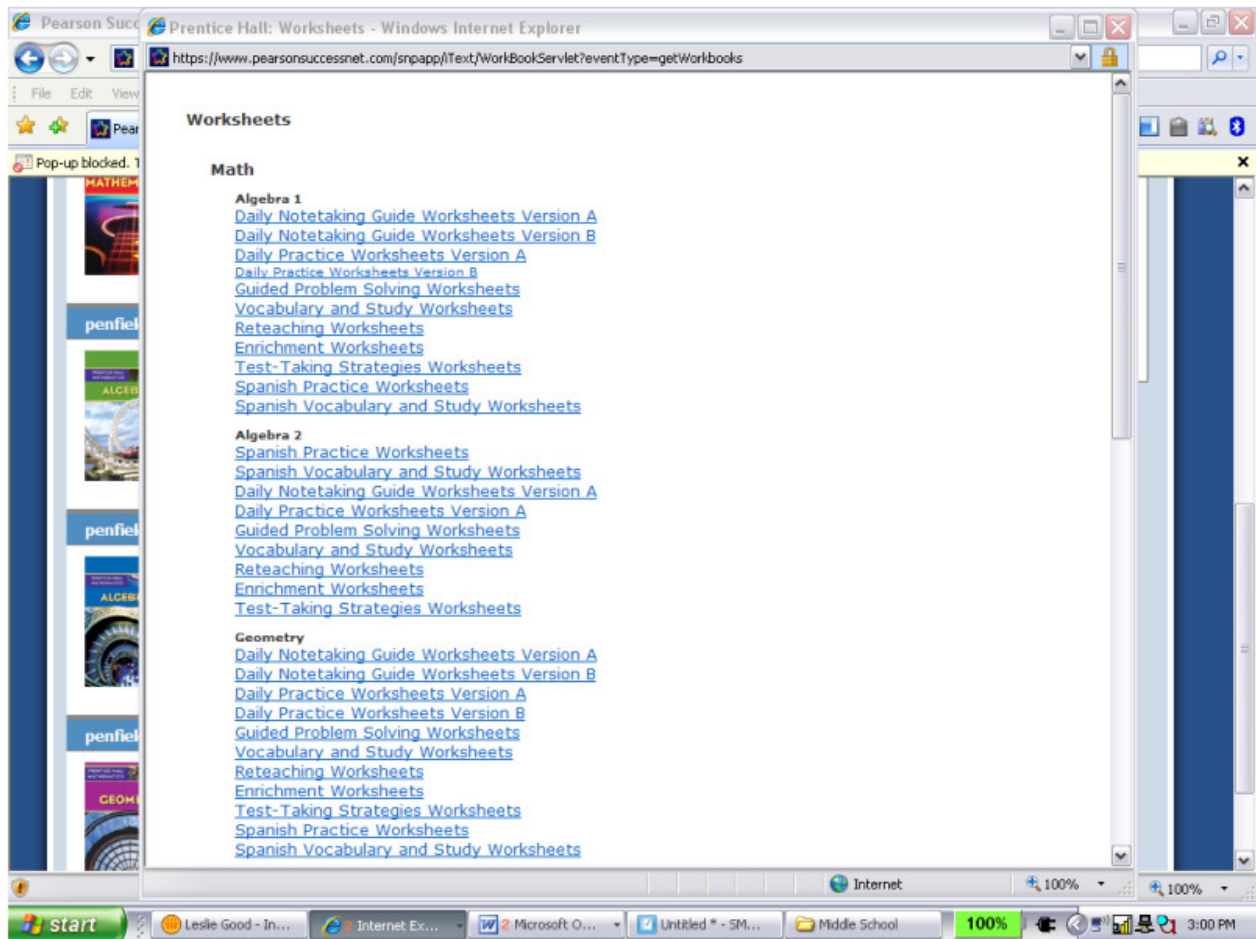
- Click on the Textbook Resources tab at the top of the page again.
- Scroll down in this window until you see Extra Practice.
- There are links for each of the chapters which will take you to extra practice problems for that particular chapter.
- Click on one of these links to try it.



- Close the window to the textbook. You should be back to the original pearsonsuccessnet website.
- Click on the Worksheet Center link next to the green Algebra book.



- A new window will open. This window lists links to the ancillary resources that teachers can use to support the learning.
- Try one of the links under Algebra 1. (The answers are not included.)



# Making the Most of Math Resources

## *Accessing the High School Resources*

### *(Algebra, Geometry, & Algebra 2/Trig)*

#### FEEDBACK FORM

Answer the following questions based on a scale of 1 – 4, with a score of 1 being *poor* and a score of 4 being *excellent*:

1. An overall rating for the presentation: 1 2 3 4
2. An overall rating for the website showcased this evening:  
1 2 3 4
3. An overall rating for the packet you received: 1 2 3 4

The PCS Math Department is looking to develop a website to provide additional information to support students and parents at home. This website would be for students, K-12.

What type of information would you like to see on this website?

Additional Comments: